

AMENDMENTS TO THE CLAIMS

1. (Original) A binary refrigeration unit comprising:

a refrigerant condensation section of a low-temperature side refrigerant circuit, and a refrigerant evaporation section of a high-temperature side refrigerant circuit disposed side by side with the refrigerant

condensation section of the low-temperature side refrigerant circuit, the refrigerant condensation section of the low-temperature side refrigerant circuit being cooled by cold generated at the refrigerant evaporation section of the high-temperature side refrigerant circuit to condense a refrigerant of the low-temperature side refrigerant circuit at the refrigerant condensation section, wherein:

a refrigerant tank is connected to a low-pressure side of the high-temperature side refrigerant circuit through a connecting pipe equipped with pressure reduction means.

2. (Original) The binary refrigeration unit according to claim 1,

wherein a sum of an internal volume of the refrigerant tank and an internal volume of a duct from the pressure reduction means to the refrigerant tank is in a range of 30% to 75% of the entire high-temperature side refrigerant circuit.

3. (Original) A binary refrigeration unit comprising:

a refrigerant condensation section of a low-temperature side refrigerant circuit, and a refrigerant evaporation section of a high-temperature side refrigerant circuit disposed side by side with the refrigerant condensation section of the low-temperature side refrigerant circuit, the refrigerant condensation section of the low-temperature side refrigerant circuit being cooled by cold generated at the refrigerant evaporation section of the high-temperature side refrigerant circuit to condense a refrigerant of the low-temperature side refrigerant circuit at the refrigerant condensation section, wherein:

a refrigerant tank is connected to a low-pressure side of the high-temperature side refrigerant circuit through a connecting pipe equipped with pressure reduction means;

and a high-pressure side of the high-temperature side refrigerant circuit and the refrigerant tank are connected to each other through a bypass pipe equipped with opening/closing means.

4. (Original) The binary refrigeration unit according to claim 3, further comprising:

control means for opening the opening/closing means of the bypass pipe at the time of starting a compressor disposed in the high-temperature side refrigerant circuit, and for closing the opening/closing means after passage of predetermined time or detection of a preset value of a physical amount.

5. (Original) The binary refrigeration unit according to claim 3 or 4, further comprising:

control means for opening the opening/closing means of the bypass pipe at the time of stopping the compressor disposed in the high-temperature side refrigerant circuit, and for closing the opening/closing means after passage of predetermined time from a start of the compressor or detection of a preset value of a physical amount.

6. (Original) A binary refrigeration unit in which a refrigerant condensation section of a low-temperature side refrigerant circuit and a refrigerant evaporation section of a high-temperature side refrigerant circuit housed in a case are disposed side by side; and the refrigerant condensation section of the low-temperature side refrigerant circuit is cooled by cold generated at the refrigerant evaporation section of the high-temperature side refrigerant circuit to condense a refrigerant of the low-temperature side refrigerant circuit at the refrigerant condensation section,

the binary refrigeration unit comprising:

a high-temperature side refrigerant tank connected to a low-pressure side of the high-temperature side refrigerant circuit through pressure reduction means; and

a low-temperature side refrigerant tank connected to a low-pressure side of the low-temperature side refrigerant circuit through pressure reduction means, wherein one refrigerant tank is installed in the case; and the other refrigerant tank is attached to a backside of the case.

7. (Original) A binary refrigeration unit in which a refrigerant condensation section of a low-temperature side refrigerant circuit and a refrigerant evaporation section of a high-temperature side refrigerant circuit housed in a case are disposed side by side, and the refrigerant condensation section of the low-temperature side refrigerant circuit is cooled by cold generated at the refrigerant evaporation section of the high-temperature side refrigerant circuit to condense a refrigerant of the low-temperature side refrigerant circuit at the refrigerant condensation section,

the binary refrigeration unit comprising:

a high-temperature side refrigerant tank connected to a low-pressure side of the high-temperature side refrigerant circuit through pressure reduction means; and

a low-temperature side refrigerant tank connected to a low-pressure side of the low-temperature side refrigerant circuit through pressure reduction means,

wherein one refrigerant tank is installed in the case; and the other refrigerant tank is mounted on a tank mounting member rotatably mounted on a backside of the case to be rotatably attached to the backside of the case.

8. (Original) The binary refrigeration unit according to claim 7, wherein a connecting pipe extended from the low-pressure side of the high-temperature side refrigerant circuit or the low-temperature side refrigerant circuit through a back plate of the case is connected through a loop to the refrigerant tank attached to the backside of the case.

9. (Original) The binary refrigeration unit according to any one of claims 6 to 8,

wherein the refrigerant tank of the high-temperature side or the low-temperature side attached to the backside of the case is divided into plural portions.

10. (Previously presented) The binary refrigeration unit according to any one of claims 6 to 8,

wherein the low-temperature side refrigerant tank is installed in the case; and the high-temperature side refrigerant tank is attached to the backside of the case.

11. (Previously presented) The binary refrigeration unit according to any one of claims 6 to 8,

wherein a wall abutting member whose rear end is positioned in the rear of the refrigerant tank attached to the backside of the case is attached to the backside of the case.

12. (New) The binary refrigerant of claim 3 further comprising:
a low-temperature side refrigerant tank connected to a low-pressure side of the low-temperature side refrigerant circuit through pressure reduction means,

wherein one refrigerant tank is installed in the case and the other refrigerant tank is attached to a backside of the case; and

wherein one refrigerant tank is installed in the case and the other refrigerant tank is mounted on a tank mounting member rotatably mounted on a backside of the case to be rotatably attached to the backside of the case.

13. (New) The binary refrigeration unit according to claim 12,
wherein a connecting pipe extended from the low-pressure side of the high-temperature side refrigerant circuit or the low-temperature side refrigerant circuit through a back plate of the case is connected through a loop to the refrigerant tank attached to the backside of the case.

14. (New) The binary refrigeration unit according to claim 12, further comprising:

control means for opening the opening/closing means of the bypass pipe at the time of stopping the compressor disposed in the high-temperature side refrigerant circuit, and for closing the opening/closing means after passage of predetermined time from a start of the compressor or detection of a preset value of a physical amount.